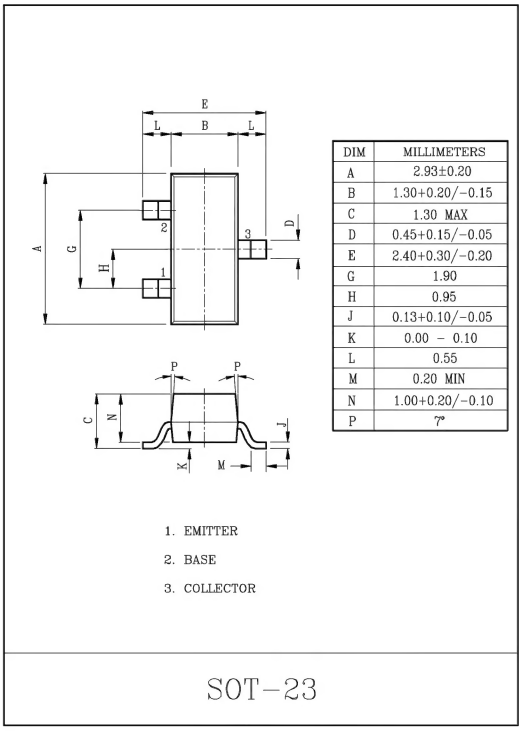
KOREA ELECTRONICS CO.,LTD.

SEMICONDUCTOR
TECHNICAL DATA

BCV71/72
BCW71/72
EPITAXIAL PLANAR NPN TRANSISTOR

LOW LEVEL AUDIO-AMPLIFIER AND SWITCHING.

FEATURES
- Super Mini Packaged Transistor for Hybrid Circuits.
- For Complementary with PNP Type BCW69/70/89.



DIM	MILLIMETERS
A	2.93±0.20
B	1.30+0.20/−0.15
C	1.30 MAX
D	0.45+0.15/−0.05
E	2.40+0.30/−0.20
G	1.90
H	0.95
J	0.13+0.10/−0.05
K	0.00 − 0.10
L	0.55
M	0.20 MIN
N	1.00+0.20/−0.10
P	7°

SOT-23

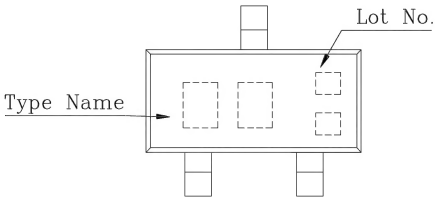
MAXIMUM RATINGS (Ta=25℃)

CHARACTERISTIC		SYMBOL	RATING	UNIT
Collector-Base Voltage	BCW71/72	V_{CBO}	50	V
	BCV71/72		60	
Collector-Emitter Voltage	BCW71/72	V_{CEO}	45	V
	BCV71/72		60	
Emitter-Base Voltage		V_{EBO}	5	V
Collector Current		I_C	100	mA
Emitter Current		I_E	-100	mA
Collector Power Dissipation		P_C	200	mW
Junction Temperature		T_j	150	℃
Storage Temperature Range		T_{stg}	-65~150	℃

MARK SPEC

TYPE	MARK
BCW71	K 1
BCW72	K 2
BCV71	K 7
BCV72	K 8

Marking



ELECTRICAL CHARACTERISTICS (Ta=25℃)

CHARACTERISTIC		SYMBOL	TEST CONDITION	MIN.	TYP.	MAX.	UNIT
Collector-Emitter Breakdown Voltage	BCW71/72	$V_{(BR)CEO}$	I_C=2mA, I_B=0	45	-	-	V
	BCV71/72			60	-	-	
Collector-Base Breakdown Voltage	BCW71/72	$V_{(BR)CBO}$	I_C=10μA, I_E=0	50	-	-	V
	BCV71/72			60	-	-	
Emitter-Base Breakdown Voltage		$V_{(BR)EBO}$	I_E=10μA, I_C=0	5.0	-	-	V
Collector Cut-off Current		I_{CBO}	V_{CB}=20V, I_E=0	-	-	100	nA
			Ta=100℃, V_{CB}=20V, I_E=0	-	-	10	μA
DC Current Gain	BCW71/BCV71	h_{FE}	V_{CE}=5V, I_C=10μA	-	100	-	
	BCW72/BCV72			-	160	-	
	BCW71/BCV71		V_{CE}=5V, I_C=2mA	110	-	220	
	BCW72/BCV72			200	-	450	
Base-Emitter Voltage		$V_{BE(ON)}$	V_{CE}=5V, I_C=2mA	550	-	700	mV
Base-Emitter Saturation Voltage		$V_{BE(sat)}$	I_C=10mA, I_B=0.5mA	-	750	-	mV
			I_C=50mA, I_B=2.5mA	-	870	-	
Collector-Emitter Saturation Voltage		$V_{CE(sat)}$	I_C=10mA, I_B=0.5mA	-	-	250	mV
			I_C=50mA, I_B=2.5mA	-	230	-	
Transition Frequency		f_T	I_C=10mA, V_{CE}=5V, f=100MHz	-	300	-	MHz
Collector Output Capacitance		C_{ob}	V_{CB}=10V, I_E=0, f=1MHz	-	-	4.0	pF
Noise Figure		NF	I_C=0.2mA, V_{CE}=5V, ⊿f=200Hz Rg=2kΩ, f=1kHz	-	-	10	dB